Response to Comments on Centex Homes –Sterling Property Preliminary Endangerment Assessment (PEA) and Site Characterization Workplan.

Comments by Committee to Bridge the Gap On Work Plan for Perchlorate Contamination At Sterling-Centex Dayton Creek Proposed Development (14 October 2005)

Introduction

CBG's detailed comments follow, keyed to particular paragraphs of the document. Our fundamental concerns are that the Work Plan is filled with errors and misleading statements. These are all biased in one direction – to declare, before the sampling proposed in the Work Plan is even commenced – that the Rocketdyne facility cannot possibly be the source of the perchlorate contamination found at the proposed development just downstream of the contaminated Rocketdyne site. Since one of the key purposes of the Work Plan is precisely to determine the source, the bias in announcing before the fact that Rocketdyne –the only logical source – can't be there source is disconcerting. The Work Plan should have been rejected in its entirety, rather than approved by DTSC. At minimum, all the erroneous passages should have been removed and correct information inserted. Finally, the biases and errors are so outrageous that the consulting firm who prepared it on behalf of the developer should be disqualified from conducting the sampling and related work. There will be no credibility to the results given the bias and errors already demonstrated.

Response: The workplan will be revised to serve primarily as a technical document presenting a set of objectives, a scope of work for achieving those objectives, and necessary technical and background information for completing the scope of work. The workplan will be revised to remove any text that suggests that Boeing SSFL/Rocketdyne (Rocketdyne) facility is not considered a possible source of perchlorate contamination.

Detailed Comments by Section

1.1 The introductory paragraph is misleading and incomplete. The area *does* have extensive history of perchlorate usage and spills (Rocketdyne) and the measurements performed that found the perchlorate at the development site were not done pursuant to due diligence by the developer but because of an article in the Daily News questioning why no measurements for Rocketdyne contaminants had been done, given that the site is just below Rocketdyne, and pressure from the local city council people.

The second and third sentences should be eliminated and replaced as follows: "The Rocketdyne facility directly upstream used perchlorate in ton quantities; high levels of perchlorate have been found contaminating soil and groundwater at the site and in surface water leaving the property via Dayton Canyon Creek and other drainages. Additionally, perchlorate has been detected in numerous groundwater wells in Simi Valley.

The area of the Rocketdyne facility perhaps most contaminated with perchlorate is called Happy Valley. Perchlorate contamination from Happy Valley has repeatedly been found leaving Rocketdyne via Dayton Canyon Creek. The creek continues below Rocketdyne, running through the proposed development site.

No measurements for Rocketdyne contaminants had been made during the site review for the proposed development. On May 22, 2005, a major article appeared the Los Angeles Daily News raising questions why no such data had been collected given the proximity to the contaminated Rocketdyne site. Local city council members also pushed for such tests. Two days after the newspaper article questioning the lack of such tests, the developer sent a consultant out to perform some measurements.

Those measurements found very high levels of perchlorate in a number of locations, concentrated in the creek bed for Dayton Canyon Creek."

Response: This section will be revised to state that there is no history of activities of perchlorate usage on the actual Centex Homes Sterling Property (Sterling), however known releases of perchlorate have occurred in areas of the Rocketdyne facility located directly upstream from the Sterling property. Perchlorate has been detected in soil, surface runoff and groundwater in the Rocketdyne area known as Happy Valley. Dayton Canyon Creek originates in Happy Valley and transverses the Sterling property. In addition, the section will be revised to state that sampling was conducted on the property in response to concerns from the community based on its proximity to the Rocketdyne facility.

2.1.2. 1st paragraph is misleading. It focuses on the testing of liquid propellant rockets. Since the key issue at hand is perchlorate, a component of solid propellants, the consultant appears to be attempting to divert attention from Rocketdyne as the source of perchlorate. Additionally, it claims rocket testing ceased in the 1960s. In fact, it has gone on until the last few weeks. 30,000 rocket tests in all. The only mention of the nuclear work at Rocketdyne and its contamination are three words here ("nuclear energy research"). The paragraph should be amended to reveal the truth: "There were ten nuclear reactors, a "hot lab" for cutting apart highly irradiated reactor fuel, a plutonium fuel fabrication facility, and an open-air burn pit for burning wastes. One of the reactors melted down in 1959. A second had 80% fuel damage in 1964. A third had 35% of its fuel damaged in 1969. These activities led to widespread radioactive and chemical contamination"All of these matters need to be corrected in this paragraph.

Response: The section will be revised to state that large amounts of perchlorate were stored and used on the Rocketdyne property, and unknown quantities were spilled. Soil and groundwater perchlorate contamination has been identified on and off the Rocketdyne property. In the past, perchlorate was also detected in surface water runoff in drainages originating within the property including Dayton Canyon Creek. In addition, any text intended to quantify or qualify the extent of radiation contamination on the Rocketdyne facility will be removed from the workplan. The section will be revised to

indicate that chemicals of concerns in the scope of this investigation include Cesium-137, Strontium 90 and Plutonium-238 due to the property's proximity to the Rocketdyne facility.

2nd paragraph is similarly misleading. it claims "perchlorate was used in relatively small quantities...." Simply not true. Boeing reports having burned approximately one ton of perchlorate alone via on-site open-air waste disposal at burn pits. The total quantities used on the site are very large. Furthermore, there is an effort once again to divert attention to small items such as flares. Again and again, a sign of efforts by the consultant at misdirection, raising serious questions whether DTSC should have approved this Work Plan and if approved, whether the consultant responsible should be permitted to perform the work, given the credibility problem involved.

Response: Please see response to 1st Paragraph above.

3rd paragraph is completely false. ATSDR took no samples east and down gradient from Area IV, nor any samples at all. They visited the site for a few hours, and then reviewed Rocketdyne's self-serving reports back in Atlanta. It is untrue that "no significant levels of radionuclides were found in these areas." Furthermore, it is untrue that there has been "a lack of detection of nuclear related hazards in Area 1 of the Rocketdyne Facility." Anyone who makes such statements (particularly noteworthy is the lack of any citation for these false claims) should be barred from doing the work proposed here. There has been no monitoring for radioactive contamination in Area 1; all such monitoring has been focused on Area IV. The only independent monitoring in that area – the adjacent Sage Ranch study performed under EPA oversight—found radioactive contamination. The statements are false; should be corrected; evidence further bias; and undercut the decision to do only "limited nuclear related hazards" testing.

Response: References to the ATSDR study will be removed from the Workplan.

4th paragraph is similarly misleading. "residual perchlorate concentrations" – they aren't residual. They were very high, way above permissible levels, requiring state regulators to order extensive remediation efforts. Perchlorate has been found at the NPDES discharge point (Dayton Canyon Creek) way below the Happy Valley area the Work Plan identifies as a mile away. The Plan refers to a Table I, which has not been made publicly available, so the public is barred from commenting on it. However, the last sentence of the paragraph is grossly misleading. There were on the order of 16 detections of perchlorate leaving Happy Valley in surface water measured at the NPDES discharge point. Instead, the Plan states they have been below detection limits since February 2004, ignoring all the prior detects. (Also, the most recent monitoring has found two further exceedances in recent months of perchlorate at outfalls leading into Bell Creek). The whole point is that past releases – over many decades – of perchlorate into Dayton Creek create the potential, for which the detects at Sterling-Centex appear clear confirmation, of perchlorate over the years leaking into the area of the proposed development. The consultant misrepresrents all these facts.

Response: The term "residual perchlorate concentrations" will be removed from the workplan. The complete Site Characterization and Preliminary Endangerment Assessment Workplan and associated documents, including Table 1, have been posted in the DTSC website. This paragraph will be revised to point out that perchlorate concentrations in surface water monitored by RWQCB under the NPDES permit have ranged from non-detect up to 35.1 µg/L as indicated in Table I.

2.2.1.

1st paragraph. This is outrageous. The vast majority of perchlorate contamination in California is associated with solid rocket fuels. Here again the consultant attempts to mislead, raising silly additional items such as pyrotechnics, flares, and automobile airbags. Clearly, if those were the sources, we would have perchlorate everywhere, because road flares, airbags, and fireworks are ubiquitous. The Chilean Fertilizer statement is over the edge of responsibility. EPA has formally found that 99.9% of fertilizers used in the U.S. have no perchlorate whatsoever. To throw into a discussion that is supposed to be scientifically serious a diversion to a niche fertilizer in Chile is beyond the pale.

Response: The Workplan will be revised to remove references to perchlorate sources, such as Chilean Nitrate, that are not directly associated with the areas near the Sterling Homes site. The Rocketdyne facility will be identified as a potential perchlorate source in the workplan.

2nd paragraph. The end puts a similar spin on the facts. The EPA RfD is the equivalent of 24 ppb only for adults; if the increased sensitivity of the infant and fetus are taken into account, the appropriate standard is about 1 ppb. Furthermore, the OEHHA (not DTSC, as the Plan claims) 6 ppb PHG and the EPA RfD are not defined as levels of perchlorate known to be safe to ingest, but rather levels where the risk is considered acceptable.

Response: The 6 ppb PHG for perchlorate, developed by OEHHA, was specifically set to be protective of the health of pregnant women and fetuses. As such, this concentration will not cause or contribute to adverse health effects, meaning this dose would in fact be considered safe.

2.2.7 Again, the consultant seems to know virtually nothing about radioactivity. Several hundred radionuclides were associated with work at Rocketdyne. One cannot limit the ones of concern to strontium-90 and cesium-137. For example, plutonium-238 and tritium were found in the McLaren-Hart study to have migrated off the site and contaminated the neighboring Brandeis Camp Institute.

Response: Please see response to 1st paragraph in Section 2.1.2.

2.3.1 2nd paragraph claims, without citation, that previous studies of the Sterling area and local groundwater have not found significant levels of perchlorate or TCE. We are unaware that there have been any comprehensive studies of the Sterling area. If there were, how did they miss the astronomical perchlorate found? The only groundwater studies we are aware of in the area show high TCE and other contaminants where DeVries University is now located. The studies should be clearly referenced, if they exist; if the studies don't exist, or don't support the claim upon close examination, this would be a troubling misrepresentation. The claim about no perchlorate detected at SWRCB outfalls is just false and misleading; it was the repeated detects at the NPDES outfall locations that led to the huge order to undertake perchlorate cleanup at the site. Failing to disclose this, and making it sound as though there has never been perchlorate found leaving via the discharge locations is irresponsible, and no regulator should have approved a Work Plan with such claims in it. The whole reason for this study is that there is a huge amount of perchlorate contamination right above the proposed development; it has been found leaking offsite via the NPDES outfalls; and most of that contamination has been found going into Dayton Creek, which flows onto the proposed development.

Response: In addition to the response to the 4th paragraph in section 2.1.2, the statement alluding to studies not properly referenced in the workplan will be deleted.

2.4.1 paragraph 2. The consultant grossly misuses the EPA's PRG. That PRG is for direct intake via soil, the pathway of least concern. Cleanup of perchlorate is driven by the need to protect beneficial water supplies. For that, a far more restrictive PRG is used. Setting up – and DTSC not catching it – a proposed cleanup standard of 7.8 ppm, based on the least protective standard, is very dangerous.

Response: The statement "Samples exceeding EPA's PRG of 7.8 mg/kg (ppm) are identified in red" will be deleted. DTSC uses the toxicity criterion developed by OEHHA for drinking water, specifically the 6 ppb PHG for perchlorate. This PHG is also used for surface water and soil exposures.

2.4.3 refers to a Table 2 that has not been made public; public obviously cannot comment on its veracity under the circumstances

2.4.7 similarly refers to a Table 3 that hasn't been made public. We will discuss below the complete ignorance of radiation measurements indicated by the consultant's Work Plan in this arena.

Response to Section 2.4.3 and 2.4.7: The complete Site Characterization and Preliminary Endangerment Assessment Workplan and associated documents, including Tables 2 and 3, will has been posted on the DTSC website (http://www.dtsc.ca.gov/).

2.5 1st paragraph is just outrageous. One of the main purposes of the Work Plan is to investigate the source of the perchlorate. We have been assured by DTSC that -- despite the political pressure on it to the contrary and the transparent message of assigning this

matter to its Glendale office to separate it from the DTSC review of the Rocketdyne contamination – Rocketdyne as the source will be thoroughy examined and no preconceived notions to the contrary tolerated. Yet DTSC has approved a Work Plan that says the opposite – that the data aren't consistent with Rocketdyne being the source. In fact, that is the only source consistent with the data. The claims by the consultant – discredited months ago – have now been resurrected without change, and have now been approved by DTSC. Why should the public have any confidence?

The first sentence is just false. It refers to prior sampling data – we are unaware of any prior data for the development site for perchlorate. It says the results are not consistent with the physical setting and run off conditions. They are precisely consistent: We are finding perchlorate in Dayton Creek downstream of where Rocketdyne dumped it into Dayton Creek for decades. The assertion that perchlorate in creek sediments can't be possible because of heavy rains this last year. Yet, as Professor Tabidian had predicted, the locations of high perchlorate concentrations are precisely where the creek levels out and water would pool, concentrating the perchlorate as it dries out. Indeed, the consultant conceded to Dr. Tabidian that Tabidian was right about this – the perchlorate is concentrating precisely where the water would pool and concentrate from Rocketdyne. The fact that concentrations a bit higher up the creek were ND is irrelevant; as we predicted, those areas are far steeper, exactly where you would predict perchlorate would indeed be flushed out, to collect and concentrate below where the creek levels out and water pools. Perchlorate *was* detected below the surface, contrary to the assertion made in the Work Plan, and in precisely the profile one would expect – highest contamination at surface, diminishing with depth.

paragraph 2 is particularly deceptive and raising serious questions of competence. High levels of perchlorate were found on the surface of leaves from plants in or near the dry creek bed. The consultant absolutely remarkably then claims that the presence of perchlorate on the surface of the leaves "cannot be explained by any normal transport mechanism." Where has he been? Leaves always have on them a dusting of dirt from the nearby soil, which is resuspended and lands on leaves. If the soil has perchlorate, the leaves will have perchlorate on their surface.

The strontium measurements are wholly irrelevant. Two of the plant and plant debris samples had some strontium on the leaf surfaces. No attempt was made to correlate those with perchlorate levels, and they don't correlate. Furthermore, the claims about perchlorate not being found beneath rocks or a log are nonsensical – if perchlorate is arriving via surface water and coating surfaces you would expect far higher concentrations on the upper surfaces of rocks and logs.

The next paragraph is similarly questionable. Yes, there is large variation in the split samples. That does not automatically mean there is large variation in the distribution in the soil, or that it occurs in a point source type manner. The obvious alternative hypothesis is inaccuracies in the measurements. If the measurements are accurate, it doesn't mean point-source distribution; it could readily mean large particles of

perchlorate were flushed down the stream, so in some samples you get high concentrations because of the presence of a big particle and in others less so.

The last paragraph similarly shows a bias and effort to deflect attention away from Rocketdyne that should disqualify this contractor. The site is not a substantial distance from Rocketdyne – it is half a mile; it is not located in a remote drainage; it is in the drainage of precisely the Dayton Creek into which Rocketdyne discharged so much perchlorate. The seep analysis – not cited – is in no way indication that runoff from the upper creek is not the source of the perchlorate found at the development site – just the opposite. NPDES measurements of the upper creek showed Rocketdyne releasing perchlorate into the creek and the perchlorate leaving the property via Dayton Creek. The conclusory sentence "it is clear that the perchlorate levels ... are not from transport by flow through the creek from Rocketdyne" is simply outrageous. DTSC should never have approved a Work Plan with such claims; should excise them now; and disqualify the author from doing the sampling. The purpose of the sampling is to find out if Rocketdyne is indeed the source – the contractor has already declared Rocketdyne isn't. This would be bad enough if all the data didn't point the other way. No other credible source has been identified.

Response: This section will be revised to include Rocktedyne as a potential source. Any discussions regarding conclusions reached based on previously collected data without regulatory agency oversight and approval will be deleted. The Workplan will be revised to serve as a technical document presenting a set of objectives, a scope of work for achieving those objectives, and necessary technical and background information for completing the scope of work.

4.2.5. The consultant does not appear to have any expertise with regards radiation and radioactivity. He claims background radiation is approximately 360 millirem per year or 41 microrem per hour. This is 8 times higher than measured background in the area. For years, Rocketdyne's annual reports have reported measurements of off-site background radiation. The most recent report (for 2004) says "The natural background level as measured by the offsite TLDs ranges from 28 to 59 mrem/yr" with a median of 45.5 mrem. And he is measuring at 150% of background (i.e., 540 mrem/year)—ten times what is the real background at the place.

Response: The statement "The global background level radiation level is approximately 360 millirem per year or 41 microrems per hour" will be deleted. At the August 27, 2005, public meeting, DTSC informed the community that background radiation levels for this investigation were yet to be determined. DTSC staff was to review existing background surveys done for the area to determine adequate background levels for this investigation.

DTSC, in consultation with USEPA Region 9 and the State of California Department of Health Services, is developing a Sampling and Analysis Plan (SAP) that will specifically address potential radiological contamination. SAP will be based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The SAP will have three

components: 1) an alpha/gamma survey of the entire site using hand-held instruments; 2) collection of discrete samples for analysis of gross alpha and gamma radiation; and 3) analysis of discrete samples for isotope-specific analysis of strontium-90, Cesium-137 and Plutonium-238. The SAP will be posted on the DTSC website and available for comments.

Comments from Elizabeth Crawford, Senior Environmental Specialist, Physicians for Social Responsibility (October 14, 2005)

As the recent Topanga Canyon fires scorched the majority of the Dayton Creek/Sterling Homes property, I would like to make the general comment that heightened awareness of dioxins be given in this process, with tests to differentiate between the dioxins generated by brush burning and those created by the various activities up at the Santa Susana Field Laboratory/Boeing-Rocketdyne site, one-half mile upstream from the Dayton Creek/Sterling Homes site.

In past incidents, Boeing has claimed that dioxins detected flowing offsite could be attributed to "brush fires," though previous fires had occurred several miles away from the detection sites. It can be predicted that any detections of dioxins on the Dayton Creek/Sterling Homes site will be linked to the recent brushfires through the property rather than the SSFL, despite exceedingly high levels of dioxins on the SSFL property prior to the fire, and highly frequent detections of dioxins coming off the site through the Regional Water Board's NPDES monitoring program. The polluter and developer have historically demonstrated their desire to erase any potential link between the contamination on Dayton Creek/Sterling Homes sites and the SSFL, and there is no reason to believe that they would act any differently in this instance.

Therefore, speciation tests must be done on all dioxins, to determine the type and source of the toxin, whether they are industrially-generated or organically generated from the fire.

Response: Soil samples designated for dioxin analysis will be analyzed for all its congeners to determine type and source.

My comments will be begin here with the Voluntary Cleanup Agreement that is attached to the Workplan for the Dayton Creek/Sterling Homes project.

Please note that all notes made on specific areas of the site shall apply to all areas of the site.

(Although the document is not page-numbered, I have assigned page numbers to the document, sequentially.)

1) Page 2: <u>"Site History:, section 2.4"</u> Here we have the first instance of the developer rewriting history in their favor: **"During due diligence investigation of the site, perchlorate was detected in sediments and soils…."**

Delete this sentence, and require developers to not make this claim again: once again, for the historical record, DTSC/Sacramento had been petitioned for over four years to investigate this site, yet always maintained there could be no contamination from the SSFL. So citizen representatives, including Physicians for Social Responsibility, instead petitioned Los Angeles City Council Member Greg Smith to require hazards testing of the Dayton Creek/Sterling Homes site. Councilmember Smith complied, and Centex Homes was forced to do the tests that revealed the perchlorate and strontium contamination.

For the developer to begin the investigation by claiming that the tests were done during "due diligence" is patently untrue, self-serving, and hugely undermining to the concerns of the surrounding community. Delete this sentence and all similar false statements by the developer.

2) Page 2: "Site History," Section 2.4 The very next sentence after the one mentioned above – **"The site is also down-gradient/downslope from the Santa Susana (Rocketdyne/Boeing Co.) Field Laboratory, although previous data collected from Boeing does not suggest migration of contaminants into Dayton Creek"** shows how the developer relies on polluter-friendly data from the polluter themselves, which contradicts factual, existing data from the Dept. of Toxic Substances Control and the Regional Water Board, wherein perchlorate has been detected in runoffs from the SSFL site through Dayton Creek, in the soil at extremely high levels at the SSFL, as well as in the groundwater throughout the area, well-known to contain high levels of TCE, radionuclides, fuel byproducts and other toxins.

Delete this reference to Boeing-provided, Boeing-friendly and factually incorrect statement, and all statements like this. Direct developer to stop making premature conclusions about the source of the perchlorate, strontium and future possible contamination at the Dayton Creek/Sterling Homes site.

Such references only show the bias of the developer, and lead to concerns about the developer's qualifications, motivations and ultimate conclusions on this entire issue: making these statements at this point merely shows the developer's bias and raises questions about the legitimacy of this entire process.

Likewise, please direct developer and Boeing to conduct all subsequent tests of the Dayton Creek/Sterling Homes area and surrounding properties under the guidance of

DTSC. Yesterday, October 13, 2005, Centex Homes and Boeing were at a private property bordering the Dayton Creek/Sterling Homes site, taking samples and conducting a private investigation.

Is this known to the DTSC? Is it done under the auspices of the DTSC, or in connection with this investigation? If these activities are not known to DTSC, they cause great concern, as they could only be to press the interests of the polluter and developer – i.e., a minimization of this entire issue. Finally, will this investigation yield data that will conflict with the investigation of Dayton Creek/Sterling Homes? One suspects, yes.

That the developer is banding together with the polluter and running private, clandestine tests is highly suspicious; it shows a level of connivance between the polluter and developer that is very unsettling to the community: the only two parties with anything to lose are joining together to gather alternate data? There can be only one motivation, and it is not positive.

Please be aware of these activities and ensure that Centex Homes and Boeing report to your office, and the public, before initiating any other sampling activities.

3) Page 3: Section 3.1, "Scope of Work and DTSC Oversight" **"DTSC shall provide oversight of field activities, including sampling and remedial activities, as appropriate."** In light of the above comments – that the developer's stated position is contrary to all facts and data available, and therefore the corporation's motivation, activities and conclusions are highly suspect – we ask that the DTSC provide continual supervision during sampling, remedial, and all field activities undertaken by the developer; they have shown time and again their unwillingness to abide by the interests of the surrounding community, and we have no confidence in the integrity of their work.

4) Page 4: Section 3.5, "DTSC Review and Approval" **"If DTSC determines that any report, plan, schedule or other document…fails to comply…DTSC may… (b) modify the document as deemed necessary and approve the document as modified."** We hereby call that the DTSC immediately modify this document to reflect the grave citizen concerns that exist about the developer's claims and statements, methods of testing suggested, and so on. We ask that you take into consideration the various comments given by the community, show good faith and immediately publish a new Workplan that integrates the considerations outlined here and in other sets of written comments.

5) Page 6: Section 3.14, "Notification of Field Activities" **The proponent shall inform DTSC at least seven days in advance of all field activities pursuant to this agreement and shall allow DTSC and its authorized representatives to take duplicates of any samples collected by the proponent…"** See note above, regarding Boeing and Centex taking samples on neighboring properties, on Thursday, October 13, 2005: did the developer notify DTSC about these activities? Will DTSC take split samples of what they collected on this date?

If Centex and Boeing's sampling activities on 10/13/05 are not known to the DTSC, surely this is an abrogation of the Workplan with DTSC? What measures will be taken against the developer and polluter as a result of this transgression?

What measures will DTSC take to ensure the developer and polluter will not carry on independent, unlicensed sampling activities again?

Again, since the integrity of the developer has been called into question, we ask that DTSC independently take split samples of all media taken, and run separate, independent tests for all constituents mentioned, to double-check the developer's data.

6) Page 18: Sampling and Analysis Workplan, section 3.2: Please ensure that the Revised Workplan and all subsequent documents relating to this investigation are immediately released to all concerned members of the public (easily obtained through records of contact with various community members), calls for comments are given, and comments considered and implemented in successive drafts of all documents.

"DTSC may provide oversight of workplan implementation." We ask that DTSC give constant oversight of workplan implementation, in light of the bad-faith actions on the part of the developer, throughout this process: repeatedly saying the original tests were "voluntary" and that the contamination cannot be linked to the SSFL site – the only known user of perchlorate for dozens of miles around – and topped off by the very recent clandestine tests being run by the developer and the polluter, on neighboring properties. Again, the developers have impugned their integrity, and therefore no confidence can be held in any subsequent work products authored or conducted by the firm.

7) Page 18: Site Characterization Objectives, Section 4.1 **"Determine levels of chemicals that can remain onsite and still be adequately protective of human health."** EPA levels must be used at all times on this investigation, in all media and for every toxin. The SSFL/Boeing-Rocketdyne cleanup has been plagued by warring standards between agencies, most egregiously resulting in the nuclear contamination at the SSFL being left behind at DOE safety levels – sometimes thousands of times less protective than EPA standards. We therefore hold that only EPA standards be used in this investigation and cleanup process.

8) Page 19: Site Characterization: Section 4.2 **"Proponent shall prepare a Site Characterization Workplan on Dayton Creek…"** Please ensure that the Workplan be distributed to all concerned members of the public immediately upon receipt, call for written comments and incorporate those comments into subsequent Drafts.

9) Page 19: Site Characterization Report: Section 4.3 **"The RI Report will contain…(b) sources of contamination…"** Please direct developer to seriously consider the Boeing/Rocketdyne SSFL as a potential source, direct them to not exclude it as a possibility by citing polluter-provided data or developer/polluter acquired data. Continuing to allow the developer to remove the SSFL from the list of potential sources puts DTSC in the unfortunate position of having the credibility of this process come into question. I don't believe the developer can afford that, nor the DTSC at this stage.

10) Page 21: Task 9: Public Participation, section 9.4 **"The Proponent shall publish, in a major local newspaper(s), a public notice announcing the availability of the RAW/RAP for public review and comment….** Please direct the developer to publish in the Daily News or Los Angeles Times, as many developers often use small, out-of-mainstream papers for their notification processes. We would like to ensure that the public at large will have a chance to participate in this process.

11) Page 21: Task 9, section 9.5 **"The DTSC may require that the Proponent hold at least one public meeting to inform the public of the proposed activities and to receive public comments on the RAW/RAP."** We ask that the Proponent be required to hold two meetings on the RAW/RAP, the first held after distribution of the RAW/RAP to obtain public comments, the second to be held to release the Revised Draft RAW/RAP that incorporates said public comments.

Response: Please note that the Voluntary Cleanup Agreement (VCA) document contains boiler plate language regarding the process. However background information in each VCA is site specific. DTSC acknowledges your comments referring to background information and will ensure that your comments are addressed in subsequent documents. The steps outlined in the process are pursuant to the California Health and Safety Code. The VCA states that only one public meeting is required for at the RAW stage. As you know, based on community interest, DTSC held a public meeting before beginning any work at the site. In addition, all workplans will be posted on the DTSC website and you will have an opportunity for input during each phase of the investigation.

Please note that on October 13, 2005, DTSC-Glendale staff visited the private property adjacent to the Sterling property and collected soil samples as requested by the owner during the August 27, 2005, public meeting.

WORKPLAN COMMENTS

12) Page 1: Summary of Current Conditions **"As part of Centex Homes' environmental due diligence at this site, perchlorate was found in some locations of Dayton Canyon Creek."** Again, the developer is rewriting history to serve their purposes, interests – and this merely signals their duplicity as they undertake an investigation into astronomical amounts of contamination on their property. Direct developer to lose this reference, and all future uses of this canard.

Instead, direct the developer to substitute a summary of the actual events: Los Angeles City Councilmember Greg Smith ordered these tests run, in the interest of public health: the developer runs required tests, and the contamination was found, and a Workplan Agreement was developed to address the issue.

Failure to do so will merely leave strong questions behind regarding the developer's motivations and intentions, and DTSC's role in allowing the obfuscation process to continue.

Response: The workplan will be revised to serve as a technical document presenting a set of objectives, a scope of work for achieving those objectives, and necessary technical and background information for completing the scope of work.

13) Page 1: (Same section): **"…perform characterization studies of the creek and surrounding areas…"** Please insert underlined language, to ensure that the scope of the investigation will include streambeds, banks, all drainages, etc.

Response: The term characterization, as used in this sentence, refers to delineating the nature and extent of contamination. Since perchlorate contamination was detected in Dayton Creek, this area requires characterization. Contamination has not been detected in other areas of the site. If the evaluation of other areas of the Sterling property indicates that contamination is present, then these areas will be characterized. The workplan will be revised to clarify this point.

14) Page 1: Objectives of Workplan **"The specific objectives of this workplan are as follows: Delineating the lateral and vertical extent of perchlorate and other contaminants, including strontium-90, cesium-137, and plutonium, TCE, and other contaminants of concern at the SSFL."** Please insert underlined language, to ensure that full consideration will be given to these additional toxins, one of which (strontium) may have already been detected in the soil at Dayton Creek/Sterling Homes' site.

Response: An additional objective will be added to this section as follows: To investigate whether other contaminants of concern including metals, volatile organic compounds, petroleum hydrocarbons, hydrazine, dioxins, and radionuclides are present on the site.

15) Page 1 (Same section) **"Evaluate whether contamination has migrated down Dayton Canyon from the Rocketdyne Facility, up from the groundwater, or potentially dumped in this and other areas of the Dayton Creek/Sterling Homes site."** Please insert underlined language, to ensure that all forms of potential migration will be considered, as well as all other areas of Dayton Creek/Sterling Homes' site that may have been affected by surface water runoff, groundwater pollution, or clandestine dumping.

Response: The specific objective statement will be revised to include other pathways of potential migration as suggested.

16) Page 2: Rocketdyne Site History **"Perchlorate was used in relatively small quantities as an oxidizer…"** "Small" in relation to what? Alternate uses of perchlorate in the immediate area? Over 30,000 rocket tests have been held up at the SSFL, all of which may have used perchlorate. Further, any known information about amounts of perchlorate stored, handled, and disposed of is controlled by Boeing, who continually poses alternate potential sources of the perchlorate contamination detected in all directions surrounding their site: children fireworks, sparklers, old movie sets, rare Chilean nitrate fertilizer, road flares, etc. – anything but their 57-year history of rocket

tests. To rely on Boeing statements or numbers at this stage is highly tenuous. Please direct developer to skew this rhetoric toward proveable science and to not ignore the obvious.

Response: This section will be revised to state that while there is no history of activities of perchlorate usage on the actual Sterling property, known releases of perchlorate have occurred in areas of the Rocketdyne facility located directly upstream from the Sterling property. Perchlorate has been detected in soil, surface water runoff and groundwater on and off the Rocketdyne property. Dayton Canyon Creek originates in Happy Valley and transverses the Sterling property. Sampling was conducted on the Sterling property in response to concerns from the community based on its proximity to the Rocketdyne facility.

17) Page 2: Same section **"The Agency for Toxic Substances and Disease Registry (ATSDR) has previously investigated the offsite areas east and downgradient (Bell Canyon) from Area IV. No significant levels of radionuclides were found in these areas…"** For the record, the ATSDR study was so flawed in favor of the polluter the federal agency was cited and fined for producing such a shoddy piece of scientific work. The fines then were given to UCLA to finance a public health study that could be trusted.

We highly recommend you eliminate any and all reference to the ATSDR study on the SSFL site, lest any work here based on conclusions from that study be likewise compromised.

Response: References to the ATSDR study will be removed from the Workplan.

18) Page 2: Next sentence **"Due to the topography between Area IV and the Sterling site, and lack of detection of nuclear related hazards in Area I of the Rocketdyne facility, limited nuclear related hazards were tested for as part of this investigation."** It is vital to note that according to the USEPA, radiological characterization of the SSFL site is highly inadequate. These comments and others were part of the USEPA's comments on the Department of Energy's plan to decontaminate and decommission their Energy Technology & Engineering Center, the nuclear research location on the SSFL.

As the saying goes, "Lack of evidence is not the same as evidence of lack," meaning, it's not that they have data showing it didn't get there – they just don't have data.

It would be premature and highly limiting to this investigation's effectiveness to assume anything about the radiological information available on the SSFL and surrounding areas. No EPA-satisfactory radiological characterization has ever been done on the site; a few sporadic tests for specific radionuclides have been done in certain surrounding areas, but are questionable in that they were obtained by the polluter and sympathetic agencies without proper oversight by EPA, and the EPA has never accepted the data as reliable. Therefore it cannot be relied upon in this investigation.

We recommend that a full radiological characterization be done on the Dayton Creek/Sterling Home site, on soil samples and all water encountered, from unfiltered samples (water) and un-ashed soil samples. No method other than soil samples must be followed for radiological investigation. No hand-held, temporary monitoring shall be done; specific radionuclides of Strontium-90 (possibly already detected in prior tests), Cesium-137, and plutonium must be tested for in the unashed soil samples, and must be investigated as widely as the perchlorate, metals, VOCs, and the other contaminants for which you are screening.

Any assumptions about radionuclides on this and related sites based on data provided from earlier studies will seriously impeach conclusions from this study, without a clean-slate approach: the question is simply this: are radionuclides associated with work historically done at the SSFL present at above-normal levels in the soils at Dayton Creek/Sterling Homes? Saying in effect 'prior flawed studies tell us we don't have to worry' cannot possibly be enough of an investigation for the DTSC. If the EPA isn't satisfied with the radiological knowledge of the SSFL and surrounds, how can the DTSC or DHS?

Response: Any information intended to quantify or qualify the extent of radiation contamination on the Rocketdyne facility will be removed from the workplan. DTSC, in consultation with USEPA Region 9 and the State of California Department of Health Services, is developing a Sampling and Analysis Plan (SAP) that will specifically address potential radiological contamination. The SAP will be based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The SAP will have three components: 1) an alpha/gamma survey of the entire site using hand-held instruments; 2) collection of discrete samples for analysis of gross alpha and gamma radiation; and 3) analysis of discrete samples for isotope-specific analysis of strontium-90, plutonium-238 and cesium-137. The SAP will be posted on the DTSC website and available for comments.

19) Page 3: Same section **"The levels of perchlorate in the surface water [monitored by RWQCB] have been below detection limits since February 2004."** Interesting to note that the developer chooses to chart only a recent time limit where no perchlorate detections occur; what about earlier years, when perchlorate has been found to be leaving the site via surface water into Dayton Creek/Sterling Homes' site (among others) on many occasions? Again, this instance is a bit disingenuous; a full historical study should be done over the course of perhaps a decade to prove the lack of potential of migration via surface water – rather than making a conclusion based on only 16 months of data. If conclusions are to be drawn, the developer must provide a much greater body of data than this.

Response: The sentence will be revised to read "Perchlorate concentrations in surface water monitored by RWQCB have ranged from non-detect up to 35.1 µg/L."

20) Page 3: Perchlorate, section 2.2.1 **"Perchlorates are currently used in the Space Shuttle Launch System, missiles, pyrotechnics, flares, and in automobile airbags.**

Perchlorates have also been shown to be present in Chilean Nitrate fertilizers at relatively high levels." We understand that it is important to outline all potential sources of perchlorate in this case; perhaps DTSC or the developer can give a breakdown in probability.

After all, how much rare Chilean nitrate was possibly used or dumped at the Dayton Creek/Sterling Homes site? It is one of the sources commonly put forward as alternatives to the 6-decade rocket testing facility so often at the center of perchlorate detections in the Simi Valley, Ahmanson Ranch, and Runkle Ranch sites – and that is .5 miles upstream and upgradient from the site under investigation.

This statement about Chilean Nitrate needs to be substantiated in some way to be credible. How about, "However, as no farming with Chilean nitrate was done at the Dayton Creek/Sterling Homes site, it is not likely to be a source of the contamination," similar to the information the developer helpfully provides the reader when discussing the SSFL.

Response: The workplan will be revised to remove references to perchlorate sources, such as Chilean Nitrate, that are not directly associated with the area near the Sterling Homes property. Rocketdyne will be identified as a potential perchlorate source.

21) Page 3: Same section **"The groundwater at the Sterling property is not intended to be used for drinking water and the proposed development will utilize city water as the source of drinking water."** This dynamic – that the immediate groundwater will not be drunk by the inhabitants – is what leads to fiascoes such as Newhall Ranch, in which the local groundwater was polluted by an industry, then is cut off from future productivity as a drinking water source unless cleaned up by the community at astronomically high cost.

It is highly likely that the perchlorate contamination at Dayton Creek/Sterling Homes' site is currently contaminating the groundwater at the site, leaching into the surface water and infiltrating the headwaters of the Los Angeles River. So the creek/surface water/sediment/groundwater interconnection must be a central piece to this investigation, not simply dismissed because future inhabitants won't drink the water – yet.

Response: References to the use of groundwater at the Sterling property will be removed from the workplan. If analytical testing indicates that surface water has been contaminated by perchlorate, then the extent of perchlorate in surface water will be delineated and an investigation regarding perchlorate sources will be initiated. Furthermore, the lateral and vertical extent of perchlorate in soil will be delineated, and if perchlorate extends to depths that may impact groundwater, then a groundwater investigation will be initiated.

22) Page 3: Same Section **"Recent studies have shown that some food crops such as lettuce can have levels of perchlorate when grown using water containing perchlorate."** Continue discussion here – explain that plants take up and concentrate

perchlorate in their tissue – water with perchlorate levels of 6, 8 ppb can lead to lettuce with perchlorate levels as high as 80 – 150 ppb.

Likewise, perchlorate has been found in 98% of milk in the American food supply, according to the EPA's own studies.

Therefore, if an individual is obtaining perchlorate on a daily basis from a variety of sources – their food as well as their water – their chances of taking in an unhealthy level of perchlorate – daily – is dramatically heightened.

Response: The purpose of the perchlorate discussion is to present background information and a summary of the characteristics of a contaminant of concern detected at the site. The workplan will be revised to include references to detailed information regarding perchlorate uptake through vegetable consumption.

Which leads to the next comment:

23) Page 4: Same section **"…EPA's recently released Reference Dose (Rfd) for perchlorate is equivalent to an exposure limit of 24 ppb."** This is exactly the point – 24 ppb perchlorate from all sources. Drinking water cannot be the only source considered as a potential pathway to humans.

Response: When all analytical results are received all the pathways will be included in the risk assessment conducted for the site. For perchlorate exposure under an unrestricted, residential exposure scenario, all relevant pathways are considered, including soil ingestion, dermal contact with soil, inhalation of soil particulate and uptake through home-grown produce. DTSC uses the toxicity criterion developed by OEHHA for drinking water, specifically the 6 ppb Public Health Goal (PHG) for perchlorate. This PHG is used not only for groundwater, but also for surface water and soil exposures.

24) Page 4: Dioxins, section 2.2.6 **"These materials have also been shown to be produced by brush fires…"** See above note regarding specifying the dioxins found on the site, in runoff and in sediment – it must be determined the source of the dioxins, either industrially-formed or organically-formed.

Response: Soil samples designated for dioxin analysis will be analyzed for all its congeners to determine type and source.

25) Page 4: Radiological Materials, section 2.2.7 **"The primary radionuclides of concern are Strontium-90 and Cesium-137, and plutonium."** Please include plutonium on the list of radionuclides tested for, as it is associated with the work done at the Rocketdyne site.

Response: Plutonium will be added to the radionuclides analytical scheme.

26) Page 5: Site Characteristics section 2.3.1 **"As shown in Table 1, the levels of perchlorate in the surface water samples have been below detection limits since February 2004."** See above note, regarding the necessity for having a basis of data to back up claims such as the ones this one supports – that surface water migration from the site is not possible. To make such claims, the developer must submit a more long-term historical monitoring database to provide backup.

Response: The sentence will be revised to read "Perchlorate concentrations in surface water monitored by RWQCB have ranged from non-detect up to 35.1 µg/L."

27) Page 6: Initial Studies, section 2.4.1 **"The creek appeared to be the most likely potential pathway for perchlorate to have theoretically migrated offsite from the Rocketdyne facility to the location of the proposed development although there have been no prior tests results to suggest such a migration had occurred."** This statement appears to be another example of the developer working to exonerate Boeing/Rocketdyne as a potential source of the pollution. The question should be put at this point, "Are there any prior test results to suggest such a migration had not occurred? Again, lack of evidence is not evidence of lack.

Response: This sentence will be revised to "The creek appears to be the most likely potential pathway for perchlorate migration from the Rocketdyne facility to the Sterling Property."

Please direct the developer to desist in making misleading statements such as these, and to conversely qualify the claims that are made (such as Chilean nitrate fertilizer being a potential source of the pollution).

Response: The workplan will be revised to remove references to perchlorate sources, and discussions regarding the occurrence of perchlorate, that are not associated with the area near the Sterling property.

28) Page 7: Surface soils, section 2.4.2 **"Two of the samples were collected in the areas indicated for future grading operations…"** Samples from all gridded sections, at all levels of potential grading, must be taken at the site. Any soil that is graded is potentially liberating contaminated dust, and tests must ensure that this does not happen. Concentrate sampling on graded areas, to be conducted on a completely gridded basis (one sample per grid).

Response: In addition to randomly selected grids, samples will be collected if contamination is detected in any of the areas slated for grading. Biased sampling will also be performed in areas that appear to have a potential for being contaminant sources such as; areas that have received fill soil, drainages that are potential contaminant migration pathways, and areas where debris and trash have been deposited.

29) Page 8: Water Sampling, section 2.4.5 **"…below the detection limit of 4 ppb in water."** Why is the lab detection limit set at the relatively high level of 4 ppb? Perchlorate can be detected to markedly lower levels than that – to fractions of ppb – and as many states' health levels of perchlorate (and the EPA's own original health level, and OEHHA's) – is set at 1 ppb, this 4 ppb level is highly inadequate to test for the presence of perchlorate. Please ensure the detection limits of the labs and field equipment are set for under 1 ppb.

Response: The detection limit reference listed is below the California action level of 6 µg/L for perchlorate, so it is appropriate for evaluating perchlorate in drinking water.

30) Page 9: Summary of findings, section 2.5 **"As shown in Figure 2, the Sterling site is a substantial distance from the Rocketdyne site and is located in a remote drainage area."** Here is another statement from the developer that contains a shading of perspective that pulls from the truth and gives benefit to the developer – in anyone's estimation, half a mile is a very short distance – by foot, by vehicle, by air, by water drainage. Statements like this make the report seem to skew all situations to the developer's benefit, in the face of evidence to the contrary. Please direct developer to remove this value-laden statement, as well as the following – regarding the remote drainage area.

The drainage area – Happy Valley Drainage – may be remote to the city, but it is highly local to the SSFL, and in fact contains some of the highest contamination levels on the site, most notably perchlorate and TCE. Again, the statement rings as disingenuous, pushing belief to the developer and polluter's benefit at the cost of logic and evidence.

Response: The Rocketdyne facility will be identified as a potential perchlorate source.

31) Page 10: Dayton Canyon Creek, section 3.2 **"…we propose to collect one…sample…approximately every 200' from Valley Circle to the end of the lower creek area."** Please apply more protective standards to ensure that all potential additional contamination will be detected; if the contamination was dumped, it is highly likely to be also in other locations, ones that may not be detected if sampling is only done every 200'. Something along the lines of every 50' would provide a tighter "screen" to ensure other small pockets of contamination would be found.

Response: If elevated levels of perchlorate are detected in any of the samples, supplemental sampling to delineate the extent of contamination will be conducted.

32) Page 11: Radiological Testing, section 3.3 **"The global background radiation level is approximately 360 millirems per year or 41 microrems per hour."** I believe this level has been challenged, and I would recommend that further study be given before this number is arrived at; numbers ranging around a third to a fifth of this level have been forwarded previously, and so we recommend that further research be given to this fact.

Response: The statement will be removed from the workplan. At the August 27, 2004, public meeting, DTSC informed the community that background radiation levels were yet to be determined. DTSC staff was to review existing background surveys done for the area to determine adequate background levels for this investigation.

33) Page 10: Same section **"Surface soil samples…for Strontium-90 and Cesium-137 will be collected at approximately 5 percent of the locations…"** 5% coverage is not adequate, nor is the exclusion of plutonium from the radionuclides tested for. We recommend that a full 25% of the samples be tested for radioactivity – and 100% of the samples that turn up further contamination be also tested for the specified three radionuclides.

Response: DTSC, in consultation with USEPA Region 9 and the State of California Department of Health Services, is developing a Sampling and Analysis Plan (SAP) that will specifically address potential radiological contamination. DTSC will develop the SAP based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The SAP will have three components: 1) an alpha/gamma survey of the entire site using hand-held instruments; 2) collection of discrete samples for analysis of gross alpha and gamma radiation; and 3) collection of discrete samples for isotope-specific analysis of strontium-90, plutonium-238 and cesium-137. The SAP will be posted on the DTSC website and available for comments.

34) In general, increase the number of sampling sites; all drainages to be sampled every 50', on a one-sample-per-grid basis. All creekbeds, seeps, shelfs and deep sedimentation sites, all areas alongside roads, creeks or washes should be tested, at 50' intervals. All canyons and gullies are to be tested at 50' intervals, to ensure that no potential dumping areas would be overlooked.

Response: As indicated during the August 27, 2005, public meeting, the proposed frequency and quantity of samples in the workplan were the minimum number of samples to be collected during initial stages of the investigation. In general, the frequency and number of samples have been increased to focus on areas of concern such as the white deposits near the creek bed, as suggested by Professor Tabidian. Additional samples will be collected from areas of known dumping such as the construction debris near the road in DC-South and the soil fill in the canyons of DC-West.

35) Soil gas samples should be taken, in addition to 15' depths, at 10', 5' and 1' depths. This will help understand the nature of soil gas intrusion threats, and ensure that shallow pockets of potential soil gas contamination are not missed.

Response: If elevated levels are found in soil vapor, additional samples will be taken to delineate the vertical and lateral extent of contamination. If VOCs are detected in soil then additional samples will be collected to characterize the nature and extent of soil contamination, and source areas will be identified.

12.

36) Page 12: Additional Analyses, Section 4.2.6 **"If the results of the above sampling and analyses identify areas of contamination, additional sampling will be performed to further delineate the area. Prior to any additional sampling, the DTSC representatives will be contacted to approve of any changes to the current plan."** Please include the underlined word – additional sampling must be performed if any additional areas of contamination are found. How could it not happen? Contamination would be found, and it not be investigated? Please make appropriate change to ensure this investigation is built-in.

Response: If additional contamination is detected, then a supplemental investigation will be performed to characterize the nature and extent of the contamination. The statement will be revised to indicate that additional sampling must be performed, if contamination is detected.

As regarding the final sentence – is the current polluter/developer testing being done, on private neighboring properties, under the knowledge and approval of DTSC? Or is it in violation to the interests of this Workplan?

Response: The owner of an adjacent property requested that DTSC collect soil samples for perchlorate analysis. In accordance with this request, On October 13, 2005, DTSC-Glendale staff collected soil samples and submitted them for perchlorate analytical testing.

The answer to this question is of great value to the integrity of this investigation.

Thank you for the opportunity to respond to your process; I appreciate your consideration, and look forward to reading the new Revised Workplan that addresses all the community's concerns.